

AEROMEDICAL KIT 60-Hz CONVERTER FLOOR PLATE MODIFICATION

PURPOSE

Replace the original Aeromedical Kit floor plate with a smaller plate, to allow simultaneous use of the 60-Hz converter, both window/gunner seats, and the PLS-6 radio. This smaller plate will provide a secure mount for the converter and be located between the window/gunner seats at STA 280. Connection to the aircraft power system will be done through two custom-made extension cables.

LIST OF MATERIALS

1. 0.25" 6061-T6 aluminum plate (21" x 21")
2. 0.25" hard rubber pad (21" x 21")
3. 2.0" diameter steel cold roll round stock (for hold-down cups)
4. 4 tie-down stud fittings (Aeroquip part # 33115), lockwashers, and nuts
5. 12 feet of four-conductor power cord (see attached schematic)
6. 4 cable connectors (see schematic)
7. Converter brackets and hardware (from original Aeromedical Kit floor plate)

FABRICATION

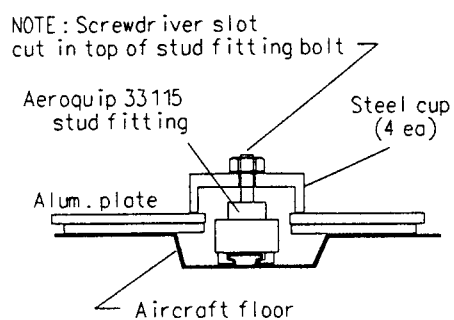
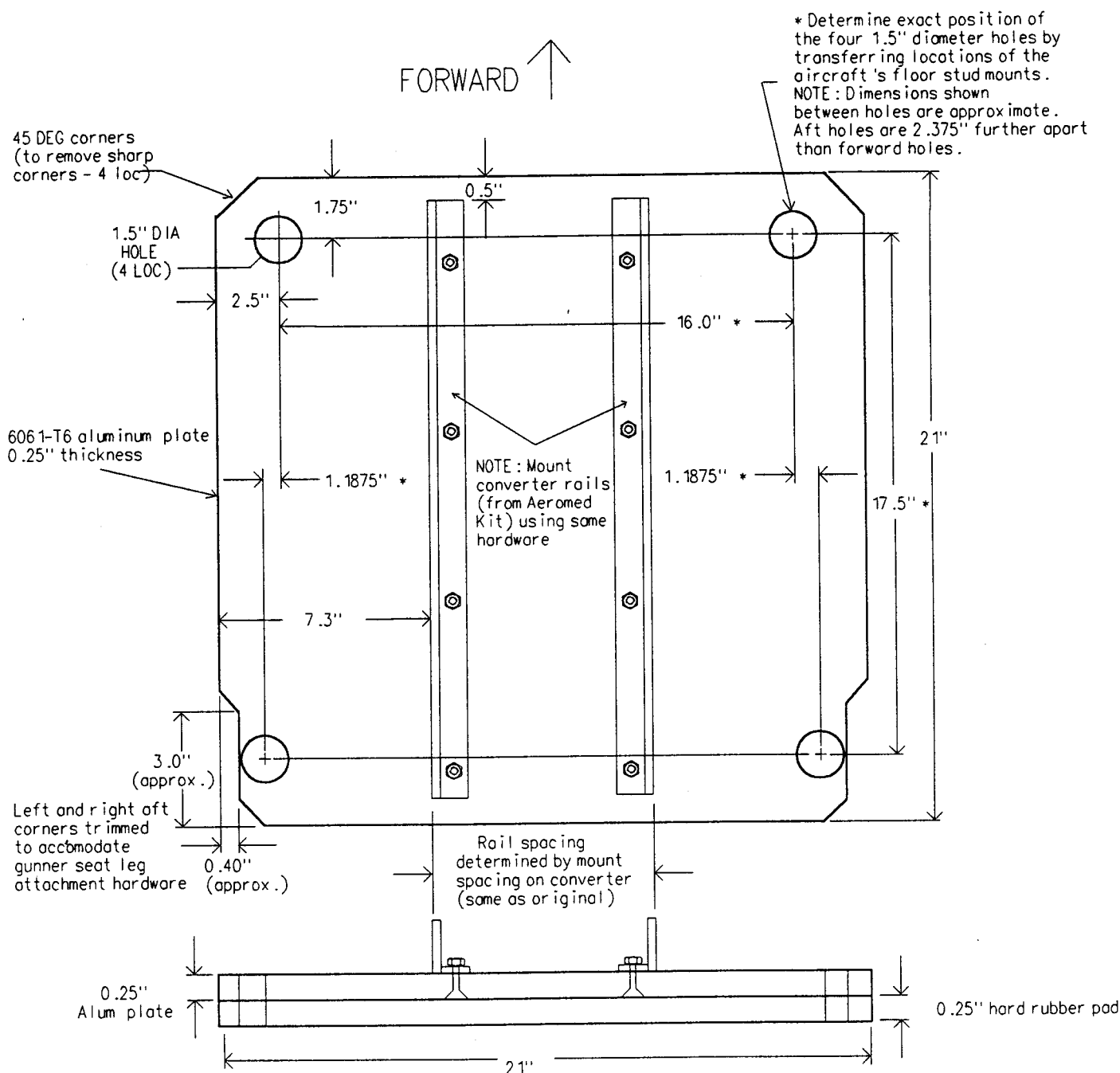
1. Cut the 0.25" aluminum plate to the size shown in the attached drawing.
2. Locate the left-front mounting hole (1.5" diameter) on the aluminum plate as shown. Dimensions for spacing between holes as shown in drawing are approximate. Determine the exact locations of remaining holes by transferring the locations of the actual aircraft floor stud fittings to the aluminum plate. Be sure to use the STA 280 seat location where the plate will be mounted. Notice that the spacing between the holes at the rear of the plate is about 2-3/8 inches greater than the spacing between the holes at the front of the plate.
3. Trim all four corners to 45-degrees to eliminate sharp points. Additionally, trim both aft corners as shown to allow for clearance with the seat leg floor attachments. This is a tight clearance and may have to be re-trimmed after a trial placement in the aircraft.
4. After cleaning the Loctite-type compound from the bolt threads, remove both mounting rails from the original Aeromedical Kit floor plate. Transfer these to the new plate using the same hardware and spacing. Center the converter on the plate with converter connectors oriented forward (note that this is reversed from original mounting on the Aeromedical Kit floor plate.)

5. Machine the four steel hold-down "cups" from the round stock as shown in the drawing. Note that the aft two cups are ground to a 1" flat (to allow for close tolerances with the gunner seat leg floor attachments.)
6. Machine a "screwdriver" slot in the top surface of the bolt portion of all four Aeroquip fittings, to facilitate tightening of the nut when the plate is installed.
7. Fabricate input and output power cables as shown in the attached wiring schematic.

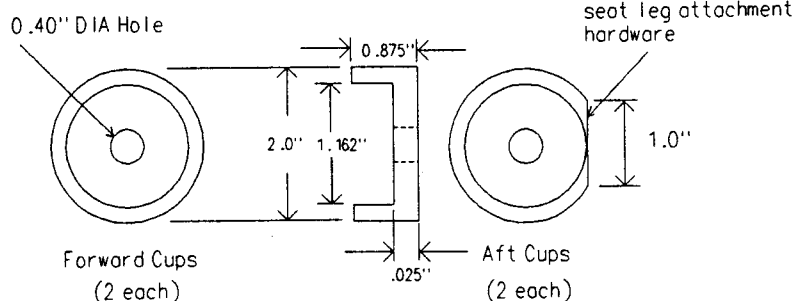
INSTALLATION

1. Attach the four Aeroquip fittings to the floor studs where the middle seat would be attached. Next, lay the plate on the floor, allowing the fittings to go through the four holes. Install the four cups (inverted, as shown in the diagram) over the fittings, and secure with lockwashers and nuts. Use a common screwdriver (placed in the slot that was cut) to keep the Aeroquip fitting from turning while the nut is being tightened. Snug, but do not over-tighten.
2. Install the 60-Hz converter to the rails using the eight bolts from the original Aeromedical Kit hardware. Due to the weight of the converter, two people make this job easier.
3. Connect the fabricated input "extension" cable from the converter to the J276 connector on the aircraft. Similarly connect the output "extension" cable to the converter output connector and to the aircraft. Secure both cables to prevent tripping hazards or damage to the cables.

60-Hz CONVERTER FLOOR PLATE



MOUNTING DETAIL



CUP DETAIL

Small Floor Plate.SKF
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